

What is Claimed is:

1. A High-Intensity Discharge lamp, comprising:

a lamp housing having a receiving chamber;

5 a light reflector supported within said receiving chamber and defining a light cavity within said light reflector;

a high intensity discharge light disposed within said light cavity of said light reflector for producing a main light having a predetermined light intensity; and

a standby lighting control system, comprising:

10 a light sensor disposed within said receiving chamber for detecting said light intensity of said high intensity discharge light within said light cavity; and

a standby lamp which is supported within said lamp housing and is activated by said light sensor between a standby mode and a backup mode, wherein at said standby mode, when said light intensity of said high intensity discharge light within said light cavity is reached above a predetermined threshold, said standby lamp is deactivated, and
15 at said backup mode, when said light intensity of said high intensity discharge light within said light cavity is dropped below said predetermined threshold, said standby lamp is activated for generating a backup light to compensate a loss of said light intensity of said high intensity discharge light.

20 2. The High-Intensity Discharge lamp, as recited in claim 1, wherein said light reflector has a light gap formed thereon for allowing said main light passing out from said light cavity to outside through said light gap, wherein said light sensor is positioned adjacent to said light gap within said receiving chamber at a position out of said light cavity to optically communicate with said light cavity through said light gap.

25 3. The High-Intensity Discharge lamp, as recited in claim 2, wherein said light reflector has a rear concave reflective surface and two side reflective surfaces to define said light cavity within said rear concave reflective surface and said side reflective

surfaces, wherein said light gap formed at one of said side reflective surfaces to communicate said light cavity with said light sensor.

4. The High-intensity Discharge lamp, as recited in claim 3, wherein said light reflector further has a guiding hole formed on said respective side reflective surface,
5 wherein said high intensity discharge light is mounted on a sidewall of said lamp housing and is longitudinally extended into said light cavity through said guiding hole to define said light gap at a clearance between a circumferential edge of said guiding hole and said high intensity discharge light.

5. The High-Intensity Discharge lamp, as recited in claim 1, wherein said
10 light sensor is a photocell functioning as a light switch to automatically activate said standby lamp when said photocell detects said light intensity of said high intensity discharge light within said light cavity is below a predetermined threshold.

6. The High-Intensity Discharge lamp, as recited in claim 2, wherein said light sensor is a photocell functioning as a light switch to automatically activate said
15 standby lamp when said photocell detects said light intensity of said high intensity discharge light within said light cavity is below a predetermined threshold.

7. The High-Intensity Discharge lamp, as recited in claim 4, wherein said light sensor is a photocell functioning as a light switch to automatically activate said standby lamp when said photocell detects said light intensity of said high intensity
20 discharge light within said light cavity is below a predetermined threshold.

8. The High-Intensity Discharge lamp, as recited in claim 1, wherein said predetermined threshold is preset at a level of 60% of a normal light intensity of said high intensity discharge light, such that when said light intensity within said light cavity is above said 60% of said normal light intensity of said high intensity discharge light, said
25 standby lamp is activated to said backup mode, and when said light intensity within said light cavity is below said 60% of said normal light intensity of said high intensity discharge light, said standby lamp is activated to said standby mode.

9. The High-Intensity Discharge lamp, as recited in claim 4, wherein said predetermined threshold is preset at a level of 60% of a normal light intensity of said high
30 intensity discharge light, such that when said light intensity within said light cavity is

above said 60% of said normal light intensity of said high intensity discharge light, said standby lamp is activated to said backup mode, and when said light intensity within said light cavity is below said 60% of said normal light intensity of said high intensity discharge light, said standby lamp is activated to said standby mode.

5 10. The High-Intensity Discharge lamp, as recited in claim 7, wherein said predetermined threshold is preset at a level of 60% of a normal light intensity of said high intensity discharge light, such that when said light intensity within said light cavity is above said 60% of said normal light intensity of said high intensity discharge light, said standby lamp is activated to said backup mode, and when said light intensity within said
10 light cavity is below said 60% of said normal light intensity of said high intensity discharge light, said standby lamp is activated to said standby mode.

15 11. The High-Intensity Discharge lamp, as recited in claim 2, wherein said standby lighting control system further comprises a backup light reflector which is supported in said receiving chamber at a position adjacent to said light reflector and defines a backup light cavity within said backup light reflector, wherein said standby
lamp is disposed within said backup light cavity for substantially reflecting said backup light from said standby lamp to outside.

20 12. The High-Intensity Discharge lamp, as recited in claim 7, wherein said standby lighting control system further comprises a backup light reflector which is supported in said receiving chamber at a position adjacent to said light reflector and defines a backup light cavity within said backup light reflector, wherein said standby
lamp is disposed within said backup light cavity for substantially reflecting said backup light from said standby lamp to outside.

25 13. The High-Intensity Discharge lamp, as recited in claim 10, wherein said standby lighting control system further comprises a backup light reflector which is supported in said receiving chamber at a position adjacent to said light reflector and defines a backup light cavity within said backup light reflector, wherein said standby
lamp is disposed within said backup light cavity for substantially reflecting said backup light from said standby lamp to outside.

30 14. The High-Intensity Discharge lamp, as recited in claim 11, wherein said standby lamp is a halogen lamp which is disposed within said backup light cavity and is

electrically connected to said light sensor to generate said backup light having a light intensity lower than said light intensity of said high intensity discharge light.

15. The High-Intensity Discharge lamp, as recited in claim 12, wherein said standby lamp is a halogen lamp which is disposed within said backup light cavity and is electrically connected to said light sensor to generate said backup light having a light intensity lower than said light intensity of said high intensity discharge light.

16. The High-Intensity Discharge lamp, as recited in claim 13, wherein said standby lamp is a halogen lamp which is disposed within said backup light cavity and is electrically connected to said light sensor to generate said backup light having a light intensity lower than said light intensity of said high intensity discharge light.

17. The High-Intensity Discharge lamp, as recited in claim 1, wherein said standby lighting control system further comprises a rechargeable backup battery disposed in said receiving cavity and electrically connected with said standby lamp to electrically backup said standby lamp when an electric supply to said HID lamp is temporarily cut off.

18. The High-Intensity Discharge lamp, as recited in claim 7, wherein said standby lighting control system further comprises a rechargeable backup battery disposed in said receiving cavity and electrically connected with said standby lamp to electrically backup said standby lamp when an electric supply to said HID lamp is temporarily cut off.

19. The High-Intensity Discharge lamp, as recited in claim 10, wherein said standby lighting control system further comprises a rechargeable backup battery disposed in said receiving cavity and electrically connected with said standby lamp to electrically backup said standby lamp when an electric supply to said HID lamp is temporarily cut off.

20. The High-Intensity Discharge lamp, as recited in claim 16, wherein said standby lighting control system further comprises a rechargeable backup battery disposed in said receiving cavity and electrically connected with said standby lamp to electrically backup said standby lamp when an electric supply to said HID lamp is temporarily cut off.